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10/528,385	03/22/2005	Jerome Julien Guy Levy	112701-497	4309

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EXAMINER	
THAKUR, VIREN A	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/528,385	LEVY ET AL.	
	Examiner	Art Unit	
	VIREN THAKUR	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/22/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble to claim 1 recites a “Method of packaging a thick but malleable frozen dessert.” The preamble is inconsistent with the body of the claim, which also recites “dispensing the frozen dessert under pressure.” Claim 1 further recites the limitation “suitable dispensing.” This limitation is subjective as to what can be considered dispensing that is “suitable” especially since the claim does not define what pressure would be “great enough” to ensure “suitable dispensing.” Claim 1 further recites “passing the frozen dessert." The limitation is not clear as to how the frozen dessert is passed or what it is passing, especially since the claim further recites dispensing the frozen dessert by opening the dispensing member.

Claims 2 and 12 recites the limitation “a freezer which is supplied with expansion gas so as to partially freeze and expand the ice cream.” This limitation is not clear as to

whether the expansion gas imparts any function to the partial freezing of the ice cream mix Furthermore, the limitation is not clear as to whether there is both partial freezing and partial expansion, or partial freezing and any amount of expansion. The claim further recites the limitation "good dissolution of the expansion gas." The limitation is subjective as to what can be considered "good dissolution."

Claim 7 recites the limitation "sufficiently quickly." This limitation is relative and a matter of degree as to what can be considered quick filling.

Claim 8 recites the limitation "the piston." There is insufficient antecedent basis for this limitation in the claim. Further regarding claim 8, the limitation "the piston then being positioned just under the dispensing member" is not clear. If the product is filled through the dispensing member, the limitation is unclear as to how the piston can thus be just under the dispensing member, since the product would clearly have been between the dispensing member and the piston. In addition, the limitation "just under" is vague as to the specific position of the piston in relation to the dispensing member. The claim is further unclear as to whether there is dependency to claims 1 and 4, claims 1 or 4 or whether the dependency to claim 4 has been cancelled.

Claim 9 recites the limitation "into which the product to be packaged which contains the amount of expansion gas needed to obtain the desired expanded state of the dispensed product is introduced." This limitation is not clear as to whether the package or the product contains the expansion gas.

Claim 13 recites the limitation "at the output." There is insufficient antecedent basis for this limitation in the claim. In light of this, the claim is not clear as to whether

the ice cream mix is treated at this temperature or is only exposed to this temperature at a particular output of a freezer.

Claim 15 recites "wherein the temperature of the product is lowered from -15°C to -20°C." This limitation is not clear as to whether the product is lowered to a temperature of between -15°C to -20°C or whether the product is at a temperature of -15°C and is then further lowered to -20°C.

The preamble to claim 16 recites a "method of packaging a frozen dessert, and for dispensing it under pressure in the expanded state." The preamble is inconsistent with the body of the claim, since the claim does not positively recite a method step of packaging. The only recitation of a packaging step is recited in the preamble: "wherein the product is placed in a container equipped with a dispensing member." However, there is no positive recitation of a packaging step in the claim. Furthermore, both claims 1 and 16 recite language such as "using a propellant gas" and "using an expansion gas." These limitations are not positive packaging steps but merely indicate what types of gases are present.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-4, 9, 12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riviere et al. (WO 9730600) in view of Smadar et al. (US 3677443), Getz (US 2294172) and Morley et al. (US 4346120). It is noted that Riviere et al. (US 6558729) has been relied on as an English translation of WO 9730600.

Regarding claim 1, Riviere et al. teaches a thick but malleable frozen dessert (column 2, lines 45-48) which is placed in a container such as a pressurized container (column 6, lines 34-39) comprising both nitrous oxide (column 6, line 37), which is an expansion gas and a propellant gas, such as nitrogen (column 6, lines 37-39). Clearly, by using a pressurized container, the propellant is at a pressure great enough to ensure suitable dispensing. Therefore, Riviere et al. discloses incorporating applicants' expansion gas and propellant gas into a pressurized container for dispensing a thick but malleable frozen dessert.

Claim 1, however, differs from Riviere et al. in specifically reciting wherein the frozen dessert is expanded to the desired degree by expansion of the expansion gas dissolved within the frozen dessert.

Smadar et al. has been relied on to teach dissolving of an expansion gas, such as nitrous oxide, such as upon dispensing of the ice cream from the flexible bag for the purpose of aerating the final product dispensed from the container. By incorporating the gas into the frozen dessert, Smadar et al. teaches that the pressure within the dessert will result in a particular overrun (i.e. expansion or aeration) when dispensed (column 4, lines 46-61). Getz has been relied on to teach dissolving nitrous oxide into cream composition, which when dispensed, result in the increased expansion of the product (page 1, left column, lines 33-50). In addition, Morley et al. has been further cited as evidence that it was conventional to inject a highly soluble expansion gas, such as nitrous oxide (column 7, line 62) into a "soft-serve" type ice cream for the purpose of providing aeration (column 7, line 50 to column 8, line 17). Therefore, by first dissolving the gas into the ice cream, the art taken as a whole teaches that this maximizes the space within the container, such that the ice cream is only expanded after dispensing. The art further teaches that the incorporation of a highly soluble expansion gas, such as nitrous oxide, has been conventionally employed for thick but malleable frozen desserts. To therefore modify Riviere et al. and dissolve the nitrous oxide into the ice cream would therefore have been obvious for the purpose of maximizing the space within the pressurized container, such that expansion of the ice cream only occurs after dispensing.

Claim 16 is similarly rejected for the reasons given above. Riviere et al. already teach that it has been conventional in the art to package a thick but malleable dessert within a pressurized container comprising both a highly soluble expansion gas, such as

nitrous oxide, and an insoluble propellant gas, such as nitrogen. The claim differs in dispensing a pasty product which is then expanded when dispensed due to the expansion gas dissolved therein. Riviere et al. already teach an expansion gas but is silent in dissolving the gas within the product. However, the references to Smadar, Getz and Morley et al. have been similarly relied on to teach dissolving the expansion gas, which then expands upon dispensing for the purpose of maximizing the space within the container, as discussed above.

Regarding claim 2 which recites treating an ice cream mix in a freezer which is supplied with an expansion gas, it is noted that Morely et al. teach that it has been conventional in the art to treat an ice cream mix, in a freezer, at 15°F (-9°C) and under pressure (column 8, lines 1-3), while also injecting a soluble gas, such as nitrous oxide into the ice cream mix. The art taken as a whole already teaches an ice cream product which is thick but malleable and can be dispensed from pressurized containers, as taught by Riviere et al., and further teach expansion of the ice cream upon dispensing by the inclusion of a soluble gas, such as nitrous oxide, as taught by Smadar et al. To therefore employ conventional processing temperatures for the purpose of achieving a “soft serve" type ice cream would therefore have been obvious for its art recognized and applicants’ intended function. Clearly, by making a “soft serve” type frozen dessert, the product is considered partially frozen.

Regarding claims 3 and 14, Riviere et al., Smadar, Getz and Morley et al. all teach using nitrous oxide, which is dissolved into the frozen dessert.

Regarding claim 4, since the combination of the prior art teaches the claimed temperature and pressure range and further teaches the particular insoluble gas, such as nitrogen gas, the particular properties of the nitrogen gas, as recited in claim 4 would have been inherent to the nitrogen gas of the prior art, absent any clear and convincing evidence to the contrary and especially, since the dew point of the propellant gas is directly related to the specific temperature and pressure to which the gas has been exposed. As such, applicant has not claimed a particular temperature and pressure in the claims that would more clearly distinguish the nitrogen gas of the claims from that of the prior art.

Regarding claim 9, which recites using a rigid receptacle used as a container into which the product to be packaged is introduced, it is noted that Riviere et al. teach using a pressurized can (column 6, lines 32-39), which is clearly a rigid receptacle.

Regarding claims 12 which recites storing at a temperature below -10°C and claim 15, which recites wherein the temperature of the product is lowered from -15°C to -20°C, it is noted that Riviere et al. teach that the frozen product can be stored at temperatures between -18°C to -24°C (column 6, lines 28-31). This encompasses the range disclosed in claim 12. In light of the rejection under 112, second paragraph, regarding claim 15 above, it is noted that the particular temperature, such as at -20°C would have been routinely determinable by experimentation to one having ordinary skill in the art, for the purpose of storing at conventional freezing temperatures.

7. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above, and in further view of Scheindel (EP 0136104) and Lowy et al (US 3710538).

Claim 5 differs from Riviere et al. in specifically reciting placing the partly frozen and partly expanded mix in the container by means of a metering device that limits the expansion of the product during filling.

Scheindel has been relied on to teach that it was conventional in the art to package viscous products into pressurized containers, wherein during metering of the product into the containers, expansion of the product was minimized (see abstract). Similarly, Lowy et al. has been further relied on to teach filling operations for viscous products such as ice cream (column 8, lines 3-5) which can include nitrous oxide (column 10, line 11) when metered into pressurized container impart as little work as possible onto the product so as to prevent any expansion of the product (column 10, lines 12-20). To therefore modify the combination and minimize any deviations in variables that would result in undesired expansion during filling of the container would have been obvious to one having ordinary skill in the art, for its art recognized and applicants' intended function.

Regarding claim 7 and in light of the rejection under 35 U.S.C. 112, second paragraph above, it is noted that Scheindel teaches on page 23, lines 5-8 that the filling, which further prevents expansion of the viscous product, as discussed above, is performed at high speed.

Furthermore, since exposure of the ice cream mixture to a change in pressure would have resulted in expansion of the dissolved gas, to fill at a particular speed so as to minimize any exposure to a pressure differential or a change in temperature would have been an obvious result effective variable, routinely determinable by experimentation for the purpose of minimizing any expansion of the product during filling, in view of the art taken as a whole.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above, and in further view of DeVries (US 4967931) as further evidenced by Stogo ("Ice Cream and Frozen Desserts").

Claim 6 recites wherein the metering nozzles moves with an up and down movement allowing filling by rising from the bottom of the container so as to prevent the formation of air pockets.

DeVries has been cited to teach that it has been conventional in the art to fill containers comprising viscous products, such as "soft serve" type ice cream, using a "bottom-up" type filling process for the prevention of the formation of air pockets in the container and for further preventing post expansion during dispensing (column 1, lines 6-32). Stogo has been relied on as further evidence of using bottom-up filling systems for "soft serve" type ice cream products for the purpose of preventing the formation of air pockets during filling (Page 50, "Packaging the Product"). To therefore modify the combination and employ a "bottom-up" style filling process would have been obvious to

one having ordinary skill in the art, for the purpose of preventing air pockets during the filling of the product into the container.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above, and in further view of Youel (US 5277336) and Scheindel (EP 0136104).

Claim 8 differs from the combination applied to claims 1-3, 8, 12-15 and 16 in specifically reciting wherein the container is filled through the dispensing member, the piston then being positioned just under the dispensing member. Youel has been cited to teach that it has been a conventional expedient in the art to first fill a bag-in-can container with a propellant (Figure 4a-4c) and subsequently fill the bag, through the dispensing member (figure 4d). Youel further teaches in figures 1-3 wherein the product is first filled and then the dispensing member is crimped. To therefore modify the combination and employ a conventional expedient for filling a pressurized container with a foamable product would have been an obvious matter of choice and/or design to one having ordinary skill in the art. Although Youel appears to be silent with respect to the piston, it is noted that Scheindel has been relied on to teach that piston-in-can type containers are also conventional containers employed in the art for dispensing expandable, viscous products. To therefore employ a particular conventional type of container and a conventional expedient for filling a foamable product into the container such as through the dispensing member, would have been obvious to one having ordinary skill in the art for its art recognized purpose. It is further noted that since Youel

also teach products which foam (i.e. expand) upon dispensing, that by filling through a dispensing member which is already crimped would further have reduced the amount of expansion of the product compared to a filling method wherein the dispensing member would have been crimped on the container after filling.

10. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above and in further view of FR2233843, Ciabatti (EP 0509967), Scheindel (EP 0136104) and Clauwert (EP1061006).

Regarding claim 10, the combination applied to claims 1-3, 9, 12, and 14-16, above teaches a pressurized container comprising both nitrous oxide and nitrogen, as taught by Riviere et al. Riviere et al. does not appear to distinguish wherein the insoluble propellant gas is outside of a pouch that contains the product and the soluble gas. Smadar however, teaches a rigid container comprising a flexible pouch that contains both the product and nitrous oxide dissolved therein. Smadar further teaches wherein a second propellant is outside of the flexible pouch containing the food product and is used to aid in dispensing the food product. Smadar is silent as to the instantly claimed propellant. In any case, FR2233943 has been relied on to teach that it has been conventional in the art to employ a rigid container that comprises a flexible pouch (figure 1, item 2) that contains a liquid, paste or powder product into which is incorporated a soluble gas, such as nitrous oxide (see page 2 of translation, 2nd paragraph) and a propellant that is not soluble in the product (Page 2 of translation, 3rd

paragraph), such as nitrogen (Page 4 of translation, 2nd to last paragraph) that is contained outside of the pouch. Ciabatti has been further relied on to teach that it has been conventional in the art to use compressed air as a propellant as well, which has been separated from the compartment that comprises the food product to be dispensed (see Abstract). Scheindel been further relied on to teach that it was conventional to employ a propellant, such as air that was separated from the compartment of the container that comprised the expandable product (Page 1, lines 7-18).

The art taken as a whole thus teaches that it has been conventional to use both a soluble expansion gas and an insoluble propellant gas, as taught by Riviere et al.; to separate the propellant gas from the expansion gas, as taught by Smadar and also to use insoluble propellants such as nitrogen or air as propellants for products contained in rigid containers comprising flexible pouches that contain the product to be dispensed entrained with an expansion gas. Once it was known to provide the propellant separate from the compartment comprising the food product and the expansion gas, to substitute one conventional propellant for another conventional propellant would have been an obvious matter of choice routinely determinable by experimentation for the purpose of achieving the desired dispensing properties.

Furthermore, to provide a compartment that comprises the product with the expansion gas separated from the insoluble propellant would also have been an obvious matter of choice and/or design since the art taken as a whole teaches that it has been conventional to separate the propellant from the expansion gas for the purpose of minimizing the effect of the propellant gas on the product while maximizing

the dispensability of the product (See Page 1 of the translation, 4th paragraph and page 2 of the translation, 10th and 11th paragraphs). Clauwert has been cited as further evidence of the conventionality of containers comprising a first compartment with a food product which is aerated upon dispensing (paragraph 0046) wherein the first compartment comprises a blowing agent such as nitrous oxide (paragraph 0043) incorporated into the food and a separate compartment for the propellant (paragraph 0047).

Regarding claim 11, the claim differs from claim 10 in the particular type of container. Specifically, claim 11 recites using a sliding piston instead of a flexible bag. In any case, Ciabatti clearly teaches a container comprising a sliding piston which uses compressed air to push the piston, which thus dispenses the product. Clauwert further teaches a container comprising two compartments with a propellant in one compartment and a food product comprising an expansion gas separated, in another compartment. To therefore substitute one conventional container for another conventional container would therefore have been an obvious matter of choice to one having ordinary skill in the art, based on the desired dispensability of the product from the container.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above and in further view of GB1232929 and Fiedler (US 4659575).

Regarding claim 13, it is noted that the combination as applied to claim 2, above already teaches wherein during the freezing process which occurs at -9°C, injection of

the gas, such as nitrous oxide occurs under pressure. Claim 13 differs from the combination in specifically reciting wherein the pressure is equal to atmospheric up o 10 bars above atmospheric pressure. It is noted that since the freezing is not performed under vacuum, that the combination already teaches wherein the pressure is atmospheric. It is noted that Morley never discusses employing any type of vacuum conditions. Therefore, by injecting the gas under pressure, it is interpreted that this is above atmospheric pressure. In any case, GB1232929 has been relied on to teach incorporating an expansion gas into an ice cream at a pressure of 80 psig (page 2, line 12). This is approximately 5.5 bar. Even further, Fiedler teaches wherein the entrainment of a gas into the ice cream mixture is improved by injecting the gas under pressure, such as 80 psi (column 1, line 51). To therefore modify the combination and employ a particular pressure above atmospheric would have been an obvious matter of routine determination to one having ordinary skill in the art, for the purpose of facilitating entrainment of the soluble expansion gas into the ice cream mix of the prior art.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2290214 discloses that it has been conventional to dissolve nitrous oxide into ice cream such that upon the change in pressure by opening of the container valve, expansion of the ice cream occurs (Page 2, left column, line 48 to right column , line 25). US 2290214 discloses using nitrous oxide dissolved in the ice cream mix (Page 1, left column, lines 31-46 and Page 2, left column, lines 21-25).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIREN THAKUR whose telephone number is (571)272-6694. The examiner can normally be reached on Monday through Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571)272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steve Weinstein/
Primary Examiner, Art Unit 1794

/V. T./
Examiner, Art Unit 1794